

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 09/937,499  
Source: IFwo  
Date Processed by STIC: 2/17/06

***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 02/17/2006

PATENT APPLICATION: US/09/937,499

TIME: 15:11:45

Input Set : A:\20430.TXT

Output Set: N:\CRF4\02172006\I937499.raw

4 <110> APPLICANT: Petrukhin, Konstantin  
 5 Caskey, C. Thomas  
 6 Li, Wen  
 7 Metzker, Michael L.  
 9 <120> TITLE OF INVENTION: Novel Human Voltage-Gated Potassium  
 10 Channel  
 12 <130> FILE REFERENCE: 20430P  
 14 <140> CURRENT APPLICATION NUMBER: 09/937,499  
**C--> 15 <141> CURRENT FILING DATE: 2001-09-26**  
 17 <150> PRIOR APPLICATION NUMBER: US00/09587  
 18 <151> PRIOR FILING DATE: 2000-04-10  
 20 <150> PRIOR APPLICATION NUMBER: 60/129,274  
 21 <151> PRIOR FILING DATE: 1999-04-14  
 23 <160> NUMBER OF SEQ ID NOS: 43  
 25 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 27 <210> SEQ ID NO: 1  
 28 <211> LENGTH: 125910  
 29 <212> TYPE: DNA  
 30 <213> ORGANISM: Homo Sapiens  
 32 <220> FEATURE:  
 33 <221> NAME/KEY: misc\_feature  
 34 <222> LOCATION: (1)...(125910)  
 35 <223> OTHER INFORMATION: n = A,T,C or G  
 37 <400> SEQUENCE: 1  
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 40 gcaaggcagggg ggccccggatg agcctgctgg ggaagccgct ctcttacacg agtagccaga 180  
 41 gctgccggcg caacgtcaag taccggcggtt tgccagaacta cctgtacaac gtgctggaga 240  
**W--> 42 gaccccgccg ctggcggttc atctaccacg ctttcgtnnn nnnnnnnntc ctttctatt 300**  
 43 cttattatta atatatgatc ttattattaa taatataaag gaatagcaaa tgagaatcca 360  
 44 ttagcaatat cagaccatga aaatgagcca gtggctgagt aacaaccaat taggacactt 420  
 45 gatagtttag caaagtgtcc aaacaggaga cagactcggc tcctttgaac gaagagtgac 480  
 46 tgcgtgtgg attccccaga taggagagca agaacataact ttctgggcct ctctcaggat 540  
 47 cggtgtttgg gaaggaagtt gtatggaaa ttcacaaact ctttagatgtt aacatttaaa 600  
 48 tgcagcatgc cacacacaca aacccacaaaa cacaaccttt ttttcatcaa taaaattgca 660  
 49 gagggccccc atttgcacag tatatacatac tgatatttaa tatccaaaat ggctagtccc 720  
 50 ttccagagtt ttatgagtt aatgtgtgct aatattaatgg gcctgggtgct ttattcattt 780  
 51 gaagcaagaa attaagtctg tgataataaag gtaagttct tatcagattt ctcttttgt 840  
 52 tgtttacag ttttctccct gtctttgggt gcttgatttt gtcagtgttt tctaccatcc 900  
 53 ctgagcacac aaaattggcc tcaagttgcc tcttgatcct ggttaagtggaa acatgaacaa 960  
 54 gaacgtacat gaatgttgta taagaactgc ctataacatt tataactatgc atcttatcct 1020  
 55 aaaaaaaaaat cctatctaaa aaagagttac tgagaaatat aaaaatgtca aagattactg 1080  
 56 aaacatttgc ccaccaattt aacatgttagt caatccttag aataatataag aaatgttcag 1140

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106 aacacctccacc tcccagggttc aagcaattct cctgcctcag cctcctgagt agctgggatt 4140  
107 acaggcacct gtcaccatgc ctggccaatt ttgttattt tagtagagac cgatttcac 4200  
108 catgttaacc aggctggct ccaaactcctg acctaagtg atctgcttac caaggtctcc 4260  
109 cagagtgcg agattacggg catgaaccac tgctcccage ctcatgttagt tcttaagagg 4320  
110 aagaaaagcc tatagattag tgagaagtag acaaattagc aatttgaatc aaatgaaaac 4380  
111 ttggtttgcatt ttcatttcatt ttggagacac ttccgggtt tccatttga tctgatttcag 4440  
112 gacactgatc ttgcattctc agttgcactg gttaatttgtt gattattttt caaaatcata 4500  
113 acagaataaca tatctgggtc cagttcaagg tacagcaagc cattttcaat gttccagct 4560  
114 tgggttttat gattcataca tgaatcattt gggcatgcag acacacccaa atagaaaacct 4620  
115 caaaccaatt aaggtaaaaa taggtttagg atgggggagg atggacaaca aaaaaaaaaac 4680  
116 cagtaaggct cctccacaaa gggcaccact tcagttggg cccatggca gacttcac 4740  
117 gtggcagggtg aaggggaaag cctaagacat cctgtgccct gatgcagatg tgacttacag 4800  
118 aacataaaac gtaaaggcgag aaggatcat ctgggtggct gctcatacta ggcaggcatt 4860  
119 atagctgcg acaagagccca acccatccct aaggatctaa aatcactaca agagaggacg 4920  
120 gaagtccctc catcatggca tcccaactag taactggat gcatagggcc actccaggt 4980  
121 ggcagcgagg ggtaaaccag gaatgtccctg ctgtccac ctctttccc caagcagggg 5040  
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124 ttccaaacta ttgcctccct atgatcttct gaagaacctc tggataaat gaacattgtt 5220  
125 atttaggtat ggttaaatga attactttc aggagcagat ttatataatta acaggtgtga 5280  
126 aaaactgaa tggataaaatc attataaaag aaatttcagg aatcaactaa tcccaagggg 5340  
127 aaagaccac taagacacta gatttgctg gagctactca aacaatata tctatcatat 5400  
128 ctacctaagc cttccaaatca atgagactag ccgcagtgac actgtctgtc aaaactac 5460  
129 cagtcatttt ttcccaaggc aggaagcatc cataccccctt cacaccttaa tctaatttcc 5520  
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131 atctactagc caacttagt aagttctgtc acgcctcac aaccacctt gtgcagcaat 5640  
132 gattctgtaa atatccatgt gtcctcaaca ccaggtaaa ttgtccctt tggaaaaac 5700  
133 attcattccc tcaaatttctc ttccaaataca ctaatataacc ttcccaaaaa gtaaggagaa 5760  
134 gttgaaagc tagctggatt gatgatggta tgtgatgtt tataagttt agttagtaag 5820  
135 catgtttta ggatattttt ctgctctcca aagagacaca attccggaaag atatttactt 5880  
136 ttgtgtattt ccacattttg gtttaagttt ggagccatct ctagatctt attcattcc 5940  
137 cctaataatgt gttataactag tagaattttc caaattacat agaattataa ctgcaactct 6000  
138 tctgactgtat gcctttttt tgcattttat gatgcagttt acatcacaaa ttcttccct 6060  
139 gcagggattt tgtaaagagg catgttgacc tgctagccct atgttacttt aagtatatgc 6120  
140 acacacacaa aaaggaacaa aaacagctgg gaattgatta tggatgatatt ctgaaataaaa 6180  
141 gcaatagttc taattatgtat tgcataattt gccacagctc ttcaagaatt gctgcaaatg 6240  
142 tcacagggtt tataatgtcg gcatttcattt ttcacgaaaa tgctattttga tggcataaaa 6300  
143 ccagaaaaaa ctaatggtca cagaagacag cttgttagatt agacaaaggt cactgtgtt 6360  
144 taatgaacag tgctgttaat taatgagaaa acaactggta catgagctt taagcattgt 6420  
145 gaatttgcaccc ccaaaaaatc aatctgcctt aaacaatttt aagtagctaa aaaacaaaat 6480  
146 aacggcaaga acataattt aacctcaaat ggtacagcag agttatatgt atcaattttaa 6540  
147 ttgaatcaca gttctcagggt tgacatatg aagaggctt ttaatgcctt ggaaaagagg 6600  
148 gttaatatgg attggatttc tcaatacata ttgttagataa aattcaagac tagctctacc 6660  
149 actgccttcc ttctttttt tttttttttt ttatttgaga cagtatctcg ctctgttgc 6720  
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152 gctaattttt tgcatttttta gtagagacgg ggtttcacct tattagccag gatggctcg 6900  
153 atctcctgac ctcgtgaccc acccgctcg gttccgaaa ggcgtggat tacaggtgtg 6960  
154 aaccaccqccq cccggccacc actqcctt aqgcttcttta atttccttat catttaagaa 7020

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204 aataattttgt gtttctaatt ttcatatcca catgatcatt gttagtagataa agaaatatga 10020  
205 ttaattttta tattgatcat acatcgta gccttagtga actcaacttgt ttcaagagt 10080  
206 ttttcgtaga tttcttggga ttttctgt aaccatcatg ccatttgtaa atagagacca 10140  
207 ttttatgttt acctttccaa actgcattgtt ttttttctt ttatgggtt tattgcagca 10200  
208 actattaata taacttacaa tactatgtt aataagagt aatggaaatgt acatcttgtt 10260  
209 tggtcttaat gttggggaaa agcattcagt ctttcaactat taagtatgtt gttaagttt 10320  
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215 tttgcgttgc ttttattgtc ttgtctgggt ttgggtgtca ggataataact gacttcataa 10680  
216 aatcatttgcg aaagttttt ctcctctatt ttctgggaga aattgtgtga aaatgatata 10740  
217 ttcttattta aatgtctgtt tgattttgcc agtggaaacca ttgaccttgc acattctgt 10800  
218 ttggggagat tttaaactat gagttcaatt gcttagcgg ttatagggtt acctagattt 10860  
219 tctatttctt ctttggtagt ttgggttagt ttgttagttt aaaggatttg gtccatttct 10920  
220 tctaagttat caagtgtatg tgctgtttaatg taccatagta ctccttcatt ttttcgttgg 10980  
221 cgttagaatct atactgatat cccctattac attccgtaca ttggggattt tcattcgtt 11040  
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226 aaatttccct ctcagcaactg ctttactgc atccatata ttgtttagt tcattttttt 11340  
227 attttcatc agttcaattt tttaaaaattt ttgagactt tctctttgac caatggacta 11400  
228 ctgggaatata ttgttaattt ccacatgtt agagatttgc ttgttgcatt tctgttattt 11460  
229 atttctagtt ttattccattt gttttttttt aacacattct gtctgattttt attttttaa 11520  
230 acttggtaaa atttggttat gacccggaaataatctatc ttaataaaatg tgcatgggtg 11580  
231 cttttaaaaa atgtgtattc tgctgtatgtt gggtgaaatg tctcatatca gtcagatct 11640  
232 gcagggtgaa tttttttttt aaatagttca catacttgcattt aattttcattt ctatgtgc 11700  
233 tatgcccata gttctgagca aggataaggt ggggttgcata agttccaaa tacgacttaa 11760  
234 catttgcata tttttccattt cagccctattt ggtttgcattt tatgaattttt gagactgtct 11820  
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236 ggcttgaata aagaacttgtt aaatgtactt tatttcgcatt tactgcagca gagaaatagt 11940  
237 gcagtgcaccc tggcataacctt aagaacaatggcatatatc tttttttttt taagaacaaat 12000  
238 ggacatattt gtttgcatttgc tttccatgaa aaagaaaaat tactacacag tagtggcg 12060  
239 gggctcaggc cacatttggg attttcttgc gatcccttat aatatgagta ctcacaactg 12120  
240 gagtgccaaa tttttttttttaaagcaggaa tttagggcag ggattaaaaaa gtggatctgc 12180  
241 cattcaaccc aggttggca caggcacaac tacatggca tttttttttt ggttatgttt 12240  
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245 aaagtcatct ttgttgggtt atccatataag taattttgaa taactgttagt taagcagtgt 12480  
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252 ttgtatcaac cctcggtttttaaacaqaaaaa gtqaatttttgcac aaaaacaaatc 12900

RAW SEQUENCE LISTING ERROR SUMMARY                    DATE: 02/17/2006  
PATENT APPLICATION: US/09/937,499                    TIME: 15:11:46

Input Set : A:\20430.TXT  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 278,279,280,281,282,283,284,285,286,287,1536,1537,1538,1539  
Seq#:1; N Pos. 1540,1541,1542,1543,1544,1545  
Seq#:1; N Pos. 119895,119896,119897,119898,119899,119900,119901,119902  
Seq#:1; N Pos. 119903,119904  
Seq#:1; N Pos. 120371,120372,120373,120374,120375,120376,120377,120378  
Seq#:1; N Pos. 120379,120380,122042,122043,122044,122045,122046,122047  
Seq#:1; N Pos. 122048,122049,122050,122051,123134,123135,123136,123137  
Seq#:1; N Pos. 123138,123139,123140,123141,123142,123143

**VERIFICATION SUMMARY**  
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L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:42 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:240  
M:341 Repeated in SeqNo=1